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EXAMINER

HUYNH, SON P

| | |
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| ART UNIT | PAPER NUMBER |
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2611

DATE MAILED: 03/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/164,427

Applicant(s)

AFSHARY ET AL.

Examiner

Son P Huynh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7,9-12 and 25-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,9-12 and 25-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-5, 7,9-12, 25-33 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5,7,9-12 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over McArthur (US 5,805,806), in view of Osakabe et al. (US 5,933,430), and further in view of Terry (US 5,499,047).

Regarding claim 1, McArthur teaches a digital coaxial cable local area network (LAN) for communicating data between clients of the cable LAN, the cable LAN comprising:
a plurality of clients (clients 14-22) (see figure 1);

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a plurality of client interface adapters (interface), one client interface adapter in communication with at least one client and in communication with at least one other client interface adapter;

at least one coaxial cable (cable 15) having an operating frequency spectrum, the operating frequency spectrum having at least a first portion and second portion, and digital signal are transmitted in the coaxial cable between the pair of the client interface adapter (see figures 1, 12 ; col. 2, line 58- col. 3, line 11; col. 4, lines 15 –39, col. 10, line 29- col. 11, line 60). However, McArthur does not specifically teaches the client interface adapter is a universal client interface adapter, and the second portion operating at a frequency greater than a signal cut-off frequency defined for conventional coaxial cable services, and at least one carrier modulated digital signal having a signal operating frequency that occupied the second portion of the operating frequency spectrum of the coaxial cable, the carrier modulated digital signal transmitted in the coaxial cable coupled between the pair of universal client interface adapters.

OSakabe et al. teaches universal client interface adapters and modulated digital signal transmitted in the cable coupled between the pair of universal client interface adapters (converter 6,7-see figures 2, 14). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McArthur to incorporate the feature as taught by Osakabe et al in order to allow the adapter connected to various type of client and improve data transmission in channel bandwidth thereby giving more convenience to the system. However, neither McArthur nor

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Osakabe specifically disclose the second portion operating at a frequency greater than a signal cut-off frequency defined for conventional coaxial cable services, and at least one carrier modulated digital signal having a signal operating frequency that occupied the second portion of the operating frequency spectrum of the coaxial cable.

Terry teaches the second portion operating at a frequency greater than a signal cut-off frequency defined for conventional coaxial cable services, and at least one carrier modulated digital signal having a signal operating frequency that occupied the second portion of the operating frequency spectrum of the coaxial cable (see col. 4, line 46-col. 6, line 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McArthur and Osakabe to incorporate the feature as taught by Terry in order to prevent interfering between the signals in coaxial cable.

Regarding claim 2, Osakabe teaches at least one of the plurality of universal client interface adapters is integrated into a client of the cable LAN (see figures 1, 2 and 14).

Regarding claim 3, Terry teaches the at least one signal is an in-home signal and the coaxial cable is tapped off a public cable network (see figures 12).

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Regarding claim 4, McArthur teaches the cable LAN comprising low pass filter coupled upstream of the in-home signal (see figure 5 and col. 7, lines 12 – 55).

Regarding claim 5, McArthur teaches the low pass filter having a cut off frequency less than 1000 MHz (see col. 7, lines 40-55).

Regarding claim 7, McArthur in view of Osakabe and Terry teaches the cable LAN as discussed in the rejection of claim 1. Terry further teaches the at least one carrier modulated digital signal is an in-home signal and is generated downstream (see figures 1-3). McArthur teaches a low pass filter coupled upstream of the in home signal (see figure 5); and the distribution amplifier 11 is bandwidth limited to prevent noise from being driven onto the network on higher frequencies where no channel is present (see col. 7, lines 50-55). It would have been obvious to one of ordinary skill in the art to incorporate a low pass filter coupled upstream of the in-home signal to a public cable network in order to prevent to noise from being driven onto the network.

Regarding claim 9, Terry teaches the carrier modulated digital signal operating frequency is greater than approximately 950 MHz (see col. 5, lines 55-60).

Regarding claim 10, Terry teaches the carrier modulated digital signal operating frequency is between 950 MHz and 2000MHz (see col. 5, lines 55-60).

Regarding claim 11, Terry teaches the carrier modulated digital signal operating frequency is range 1150-1350 MHz as discussed in the rejection of claim 10 which is approximately 1300 MHz.

Regarding claim 12, Terry teaches the carrier modulated digital signal operating frequency has a bandwidth of at least 5 MHz (see figures 2 and 3).

Regarding claim 27, Terry teaches the carrier modulated digital signal operating frequency is greater than approximately 450 MHz (see figures 2 and 3).

4. Claims 25-26, 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osakabe et al. (US 5,933,430), in view of Terry (US 5,499,047).

Regarding claim 25, Osakabe teaches a method for communicating data between a first universal client interface adapter (convert 6) and a second universal client interface adapter (converter 7) coupled by a cable, the method comprising: receiving digitized data in the first universal client interface adapter from a client (CD player 1); processing the digitized data within the first universal client interface adapter into a carrier modulated digital signal; and communicating the carrier modulated digital signal from the first universal client interface adapter to the second universal client interface adapter through a cable (see figures 1-2, 14). However, Osakabe does not specifically disclose a coaxial cable and the carrier modulated digital signal having a

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signal operating frequency that is greater than a signal cut off frequency defined for conventional coaxial cable services.

Terry teaches a coaxial cable and the carrier modulated digital signal having a signal operating frequency that is greater than a signal cut off frequency defined for conventional coaxial cable services (see col. 4, line 46-col. 6, line 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Osakabe to incorporate the features as taught by Terry in order to reduce cost for installing and maintaining to network and prevent interfering between the signals in coaxial cable.

Regarding claim 26, Osakabe in view of Terry teaches a method as discussed in the rejection of claim 25. Official Notice is taken that modulating the digitized data into an analog wave form; and converting it into an analog signal having an intermediate frequency; increasing the intermediate to a frequency that is greater than the signal cut-off frequency; and amplifying the power of the signal is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Osakabe and Terry to incorporate the well-known features in the art in order to allow the data to be transmitted within the coaxial cable and prevent interfering between signals.

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Regarding claim 28, the limitations of the cable LAN corresponds to the limitations of the method as claimed in claim 25 and are analyzed as discussed in the rejection of claim 25.

Regarding claim 29, Terry teaches the carrier modulated digital signal operating frequency is greater than approximately 450 MHz (see figures 2-3).

Regarding claim 30, Terry teaches the carrier modulated digital signal operating is greater than approximately 950 MHz (see figures 2-3).

Regarding claim 31, Terry teaches the carrier modulated digital signal operating is approximately 1300 MHz (see figures 2-3).

Regarding claim 32, Terry teaches the carrier modulated digital signal has a bandwidth of at least 5 MHz (see figures 2-3).

Regarding claim 33, Terry teaches the normal coaxial cable system transmits signal external to the cable LAN (see figure 1).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Edson (US 6,526,581) teaches multi-service in home network with an open interface.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son P Huynh whose telephone number is 703-305-1889. The examiner can normally be reached on 8:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is 703-306-0377.

Son P. Huynh
March 5, 2003


ANDREW FAILE
SUPERVISORY PATENT EXAMINER
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